BELLSOUTH

Ben G. Almond
Vice President-
Federal Regulatory

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Suite 900
1133-21st Street N.W.
Washington, D.C. 20036-3351
202 463-4112
Fax 202 463-4198
Internet: almond.ben@bsc.bls.com

May 19, 1999

Ms. Magalie Roman Salas
Secretary
Federal Communications Commission
445 12th Street, SW, Rm TW-A325
Washington, DC 20554

EX PARTE OR LATE FILED

Re: In the Matter of Communications Assistance for Law Enforcement Act
CC Docket No. 97-213 **Ex Parte**

Dear Ms. Salas:

This is to inform you of a series of meetings on May 18 and 19, 1999 between representatives of BellSouth Corporation and members of the Federal Communications Commission on the above referenced subject.

The meetings on May 18 consisted of separate meetings with each of the following four wireless legal advisors: Dan Connors in Commissioner Susan Ness's office; Karen Gulick in Commissioner Tristani's office; Peter Tenhula in Commissioner Powell's office and Ari Fitzgerald in Chairman William E. Kennard's office. Representing BellSouth Corporation were Lloyd Nault, Richard McNealy and Ben Almond. The meeting on May 19 was attended by the following personnel with the FCC and BellSouth: Geraldine Matise, Julius Knapp, Rodney Small and James F. Green, all of the FCC and Lloyd Nault, Richard McNealy, Gregory Pollet, Ernie Bond and Ben Almond, all of BellSouth. Also in attendance was Dick Shiben, on behalf of BellSouth.

The meetings with the legal advisors involved a discussion of BellSouth's legal, technical and financial arguments, which have been provided on record heretofore, of why the Commission should not support CALEA implementation of the nine punch list items requested by the FBI. The focus centered on the three most problematic and expensive punch list items for BellSouth to provide, which are Subject-initiated dialing, In band-Out band signaling and Dialed Digit Extraction. The Dialed Digit Extraction item represents approximately 50 percent of the total cost for BellSouth to implement the nine punch-list items. It is the most complex feature to implement, particularly for wireless carriers, and the highest liability risk for carriers in terms of privacy violation issues. It was briefly mentioned that BellSouth had recommended to the FBI a more economical means of access to the desired dialed digits by use of a data channel and a Dialed Number Register. It was briefly mentioned why implementation of the punch list items would adversely affect the public's interest including customer and taxpayers rates, unauthorized privacy of communications, cost effective achievement of assistance capability requirements and barriers for market entry in telecommunications.

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The meeting on May 19 with the OET and Wireless Telecommunication Bureau staff consisted of a more detailed discussion of the relevant issues discussed with the legal advisors. In all the meetings, the attached document was handed out and mentioned. The document is an affidavit prepared by Richard McNealy, who actively participated in the standard's group for development of the J-STD-025 standard for CALEA. The document provides rationale behind the industry's clear rejection of the punch list items and the alternative features already provided in the standards to meet the FBI's needs.

Please associate this notification and accompanying information with the docket proceeding.

If there are any questions concerning this matter, please contact the undersigned.

Sincerely,

Ben G. Almond

Ben G. Almond
Vice President-Federal Regulatory

Attachment

Cc: Dan Connors
Peter Tenhula
Geraldine Matise
Rodney Small
Karen Gulick
Ari Fitzgerald
Julius Knapp
James F. Green

Before the

FEDERAL COMMUNICATIONS COMMISSION

Washington, D.C. 20554

In the matter of:	)	
	)	CC Docket No. 97-213
Communications Assistance for Law Enforcement Act	)	

DECLARATION OF RICHARD C. MCNEALY

I, Richard C. McNealy, hereby declare as follows:

1. I am a Service Systems Engineer in the Science and Technology Department of BellSouth Telecommunications. After obtaining an Electrical Engineering degree from the University of Florida in 1971, I have worked in the telecommunications field for 26 years. I have experience with CPE equipment, SS7 networks, network signaling, and Advanced Intelligent Network (AIN), and have participated in domestic (T1S1 and TIA) and international (ITU-T) telecommunications standards bodies for over ten years. Most recently, I have participated in the Telecommunications Industry Association (TIA) TR45.2 Ad Hoc group on Lawfully Authorized Electronic Surveillance (LAES) which developed the J-STD-025 standard for CALEA, and chaired a T1S1 Ad Hoc group with a similar focus.

2. The purpose of this declaration is to provide the Commission with information about the FBI "punch list" items, provide the rationale behind their omission from the industry standard, J-STD-025 (the "J-Standard), and show that the items should not be included in any future requirements.

3. As background information, a goal of the TR45.2 LAES Ad Hoc group was to respond to the needs of law enforcement, while at the same time considering whether a requested capability was reasonably achievable and the information requested reasonably available in the telecommunications network. As engineers, it was deemed prudent to avoid producing a standard which was either non-implementable with existing technology, or was so elaborate and/or redundant that it would result in a product equivalent to the infamous "$600 hammer" purchases of popular folklore.

4. It was also necessary to consider privacy concerns and the exact nature of "call identifying information" (CII) as it applies to CALEA. In H.R. Rep. No. 103-827, Congress defined CII as follows:

> "the electronic pulses, audio tones, or signalling messages that identify the numbers dialed or otherwise transmitted for the purpose of routing calls through the telecommunications carrier's network. In pen register investigations, these pulses, tones, or messages identify the numbers dialed from the facility that is the subject of the court order or other lawful authorization. In trap and trace investigations, these are the incoming pulses, tones, or messages which identify the originating number of the facility from which the call was placed and which are captured when directed to the facility that is the subject of the court order or authorization."

With such clear direction as to the intent of Congress, the standards organization attempted as much as possible to design the J-Standard to include CII messages that conveyed information about the directory number (DN) of the originator of a call (origin), DNs dialed by the subject (destination), DN translations performed by the network as in the case of an 800 number being translated to a destination DN or a call being forwarded (redirection), or the DN of the party ultimately answering a call (termination).

5. Many contributions proposing various capabilities to be included in the CALEA delivery interface were submitted to and addressed by the TIA TR45.2 LAES Ad Hoc group.

Each capability was carefully considered and a decision as to its inclusion in or omission from the J-Standard was made based on the criteria discussed above. Each of the FBI punch-list items (along with many other law enforcement requested capabilities which were included in the J-Standard) was considered both during the drafting of the document and during the ballot resolution process.

Conference Call Content

6. The FBI has requested that the content of a call be delivered to the law enforcement collection site even if the subject of a surveillance is known to not be a party to the call (e.g., the subject has disconnected from a conference call, or the subject's connection to a conference call has been placed on hold).

7. Delivery of content from a conference call when a subject is not a party was omitted from the J-Standard for several reasons. First, it was determined that there were serious privacy and legal issues with this requested capability. After all, the connection of the person who is the subject of the court order is known to be removed from the call, and content would nonetheless be delivered only from parties who were not the subject of a court order. Second, this is not a functionality that is available pre-CALEA and would thus represent an expansion of the scope of Law Enforcement's surveillance authority. Third, the requirement would result in an increase in costs for feature development, modification to some vendor's conference call architecture, and additional call content channel capacity requirements.

8. For the above reasons, and in an attempt to avoid the "hammer" syndrome, this requirement was not included in the J-Standard.

Party Join/Hold/Drop Information

9. The FBI has requested that a separate message be sent to the Law Enforcement collection site each time that a party joins a call, is dropped from a call, or is put on hold (or removed from hold).

10. In most cases, it will be apparent to Law Enforcement which parties are participating on a call based on the messages already in the J-Standard. An Origination message informs law enforcement that the subject has placed an outgoing call and identifies the destination DN. A Termination message informs law enforcement that the subject has an incoming call and identifies the calling DN. An Answer message identifies the DN where the call is answered in cases when it is not the normal destination (e.g., call pickup, or call forwarding). A Change message reports any changes in call identities. Although the FBI is correct in asserting that, with certain vendor implementations that are allowable in the J-Standard, it may be unable to determine who is actually participating in a call at a given instance, this situation is basically the same as exists with surveillances today (pre J-Standard).

11. As with other "punch list' items, the fact that this information is neither CII, as discussed in Paragraph 4 above, nor call content was also a factor in deciding not to include this capability in the J-Standard.

Subject-Initiated Dialing and Signaling Information

12. The FBI has requested that a message be generated when the subject presses a feature key (such as hold or transfer), or presses the switch hook. In other words, the stimuli

which could cause a change in a call would be reported by messages sent over the Call Data Channel.

13. The J-Standard takes what might be called a functional approach, reporting the resultant state change that occurs in the call rather than the stimulus itself. For example, if 1) the subject is on an existing call, 2) subscribes to three-way calling, 3) presses the switch-hook and 4) dials a directory number, a message will report that a new call has been originated using the Origination message rather than a series of individual messages reporting each subject action. The stimulus information requested by the FBI is redundant and can actually cause confusion if reported in cases where the subject is pressing keys that do not affect the call (e.g., the subject doesn't subscribe to any vertical services, but flashes the switchhook anyway).

14. The important information is what happens to the call, not which buttons are pushed. To avoid development costs for this redundant functionality and reduce the number of messages that would be generated on the Call Data Channel, the standards organization correctly chose not to include this functionality.

15. As with other "punch list' items, the fact that this information is neither CII, as discussed in Paragraph 4 above, nor call content was also a factor in deciding not to include this capability in the J-Standard.

In-Band and Out-of-Band Network Signaling

16. The FBI has requested that a message be provided for each signal generated by the network which could be heard, seen, or otherwise recognized by the subject (e.g., ringing, audible ringback, busy tone, or call waiting tone).

17. This information is totally redundant with other information already provided with J-Standard capabilities. For example, the J-Standard provides for a Termination message which is delivered to law enforcement whenever a call is incoming to a subject. Included in the message is the DN of the calling party, if it is available to the network. When a Termination message is received and the subject is not on a call, it is apparent that the subject's phone is ringing and that the calling party is listening to audible ringback. That is how the telecommunications network is known to operate. Similarly, when a Termination Message is received for a subject who is on a call and subscribes to call waiting, it is apparent that the subject is hearing a call waiting tone. It is a known fact that these events occur, and the network generated tones that are being applied to the subject's or associate's line should be obvious to law enforcement. There is no need to require the development of a feature that will only report redundant information.

18. For the case where the tone or indication is generated in a different switch from the one serving the subject, not only would the information be redundant, but a capability would need to be added at the local serving switch to detect tones or indications that could be returned over a connection to a remote switch. For example, if a subject calls a party on another switch or network, the subject's local switch would need to be able to detect busy tone, reorder tone, ringback, etc. that may be present on the connection in order to be able to inform law enforcement of this fact. Such modifications would place a heavy burden on network providers, and provide practically no functionality over that which can already be inferred from a subject's services and the way that the network is known to operate.

19. As with other "punch list' items, the fact that this information is neither CII, as discussed in Paragraph 4 above, nor call content was also a factor in deciding not to include this capability in the J-Standard.

Timing Information

20. The FBI has requested that carriers provide CII within a specified time after a communications has occurred, and that a time-stamp with a set degree of accuracy be included.

21. This topic was discussed extensively in the standards organization during the development of the J-Standard. Law enforcement was informed by telecommunication participants that CII would be delivered over the Call Data Channel in a timely manner, but that normal switch call processing must be and is the first priority in order to maintain the appropriate level of service for customers. In addition, network switches are not presently synchronized to Universal Coordinated Time (UTC) and such coordination would represent a considerable and unnecessary expense. The J-Standard did not designate a specific time constraint in order to allow vendors to implement a solution that is cost effective for their unique design.

Surveillance Status Message

22. The FBI has requested that carriers provide an automated message on a regular basis indicating that a surveillance is working correctly.

23. The standards organization chose not to standardize a surveillance status message because it only makes technical sense in certain non-distributed architectures, e.g., when only

a single switch is involved in the surveillance and the status of the surveillance in that switch can be readily verified. For this purpose, an optional ConnectionTest Message was included in the J-Standard in Annex E. For networks in which the surveillance is necessarily distributed (e.g., cellular) or in cases where a distribution box is used to consolidate content and call identifying information from several network elements and fan it out to multiple law enforcement collection sites, modifications to numerous inter-element protocols would be required in order to create a valid surveillance status message.

24. As with other "punch list' items, the fact that this information is neither CII, as discussed in Paragraph 4 above, nor call content was also a factor in deciding not to include this capability in the J-Standard.

Continuity Check Tones

25. The FBI has requested that carriers be required to provide a continuous tone on Call Content Channels to act as a continuity check

26. The standards organization chose to include information about continuity checks in an informative annex since the use of a continuous tone only makes technical sense when dedicated Call Content Channels are provided. Other delivery mechanisms such as dial up channels are also valid, and it makes no technical sense to require continuity tone in those implementations.

27. There were also engineering issues with the time that would be required to remove the tone (i.e., content may be present on the subject's line before the continuity tone can be removed from the Call Content Channel), and the fact that it would be easy for a subject to

duplicate and apply a similar tone which would incorrectly indicate that the Call Content Channel was not in use.

28. As with other "punch list' items, the fact that this information is neither CII, as discussed in Paragraph 4 above, nor call content was also a factor in deciding not to include this capability in the J-Standard.

Feature Status Message

29. The FBI has requested that carriers generate an immediate message whenever a subject makes any change to features or services. This would include addition or deletion of a service or feature (having a new feature added to the line), activation or deactivation of a feature (e.g., activating or deactivating call forwarding on the line), and any subscriber profile information that may have changed (e.g., speed dial lists or the number to which a subject's line is forwarded).

30. The FBI argues that information about a subject's features can be used to help determine the number of content channels to deploy for surveillance purposes. In fact, since many features are now available on a per use basis (i.e., the customer does not need to pre-subscribe to the feature, but can use it any time for a one time charge), subjects have access to multiple features. Considering only those features that a subject is subscribed to, while ignoring the existence of per-use features, is of very limited value.

31. On the other hand, the development and deployment of this capability would be very difficult technically and costly. Providing real-time information when a subject requests the addition or deletion of a service or feature would require software upgrades to numerous carrier legacy operations and administration systems. Resource estimates up to this time have

focused on enhancements to central offices in the network to properly implement CALEA, and have not considered the impact of this requirement on those legacy systems.

32. An additional factor is that the trend in telecommunications is toward distributing service logic and service profile information, as exhibited by the growth of Advanced Intelligent Network (AIN) services. The inclusion of this capability would require carriers to implement technology to deliver service status (whether the service is presently active or not) and service profile information (DN translation information, etc.) from a multitude of various distributed network elements, and would, in my opinion, stifle the growth of new and innovative services.

33. As with other "punch list' items, the fact that this information is neither CII, as discussed in Paragraph 4 above, nor call content was also a factor in deciding not to include this capability in the J-Standard.

Dialed Digit Extraction

34. The FBI has requested that the digits that the subject dials after the call has been "cut-through" the local central office be reported by means of a message provided on the Call Data Channel. This would necessarily include digits that are being processed by CPE equipment such as a bank-by-phone system at a bank, a credit card issuer, or any of many other services that process information over the telephone which a customer expects will be kept private.

35. In the development of the J-Standard, the discussions about this feature were mainly technological and economic. For normal call processing, touch tone digits are detected by a Touch Tone Register which is a shared resource (i.e., it is available to any line

that goes off hook and stays associated with that line only as long as it takes the user to enter the desired DN). The register is only associated with a call for a short duration when dialing occurs, and is then made available for use by another call. Requiring this shared resource to monitor a call for its entire duration (as would be needed to detect any post cut-through digits) would negatively impact the level of service for other customers in an office by increasing the time that it takes to apply dial tone to a line appearance. In addition, some technologies (such as cellular and PCS) do not presently have the ability to detect touch tones at all, relying on out-of-band signaling messages to process calls.

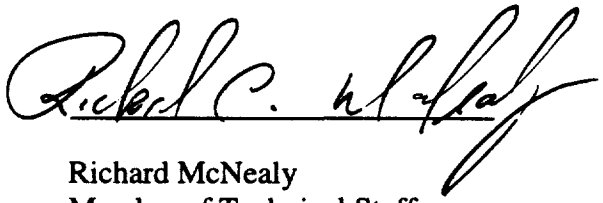
36. The J-Standard assumes the ability of law enforcement to use a Call Content Channel to monitor the transmit path from a subject, and to extract any post cut-through dialed digits. This removes the uneconomical necessity to deploy additional Touch Tone Registers in all switches across the nation just to accommodate the many pen register and trap-and-trace desires of law enforcement, and also relieves the local carrier of any decision as to whether or not digits are intended as call routing. The telecommunications network is designed for call processing, not law enforcement surveillance purposes. Once the carrier's network has completed processing a call, additional digits dialed are not CII. Such digits, if used by another network for call processing, are available from that network (e.g., an IXC).

Conclusion

37. The FBI "punch-list" items were carefully and deliberately considered by the TIA TR45.2 LAES Ad Hoc group (along with many other contributed feature suggestions) and, while obviously of use to law enforcement in their efforts to get as much information as possible from a surveillance, were deemed to be either not reasonably achievable, requesting

information that is not reasonably available, or beyond the scope of CALEA's definition of CII.

The foregoing is true and correct to the best of my knowledge. Executed on May 18, 1999.



Richard McNealy
Member of Technical Staff
Science & Technology Dept.
BellSouth Telecommunications